

SEQUENCE LISTING

<110> Clark, Janet

<120> METHOD FOR IDENTIFYING COMPOUNDS THAT
AFFECT EXPRESSION OF TRYPTOPHAN HYDROXYLASE ISOFORM 2

<130> 21487YP

<150> PCT/US2004/

<151> 2004-10-20

<150> 60/514,268

<151> 2003-10-24

<160> 12

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 447

<212> PRT

<213> Mus musculus

<400> 1

Met Ile Glu Asp Asn Lys Glu Asn Lys Glu Asn Lys Asp His Ser Ser
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Glu Arg Gly Arg Val Thr Leu Ile Phe Ser Leu Glu Asn Glu Val Gly
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Gly Leu Ile Lys Val Leu Lys Ile Phe Gln Glu Asn His Val Ser Leu
35 40 45
Leu His Ile Glu Ser Arg Lys Ser Lys Gln Arg Asn Ser Glu Phe Glu
50 55 60
Ile Phe Val Asp Cys Asp Ile Ser Arg Glu Gln Leu Asn Asp Ile Phe
65 70 75 80

Pro	Leu	Leu	Lys	Ser	His	Ala	Thr	Val	Leu	Ser	Val	Asp	Ser	Pro	Asp			
				85					90					95				
Gln	Leu	Thr	Ala	Lys	Glu	Asp	Val	Met	Glu	Thr	Val	Pro	Trp	Phe	Pro			
			100					105					110					
Lys	Lys	Ile	Ser	Asp	Leu	Asp	Phe	Cys	Ala	Asn	Arg	Val	Leu	Leu	Tyr			
		115					120					125						
Gly	Ser	Glu	Leu	Asp	Ala	Asp	His	Pro	Gly	Phe	Lys	Asp	Asn	Val	Tyr			
	130					135					140							
Arg	Arg	Arg	Arg	Lys	Tyr	Phe	Ala	Glu	Leu	Ala	Met	Asn	Tyr	Lys	His			
145				150					155					160				
Gly	Asp	Pro	Ile	Pro	Lys	Ile	Glu	Phe	Thr	Glu	Glu	Glu	Ile	Lys	Thr			
			165					170					175					
Trp	Gly	Thr	Ile	Phe	Arg	Glu	Leu	Asn	Lys	Leu	Tyr	Pro	Thr	His	Ala			
		180					185						190					
Cys	Arg	Glu	Tyr	Leu	Arg	Asn	Leu	Pro	Leu	Leu	Ser	Lys	Tyr	Cys	Gly			
	195					200						205						
Tyr	Arg	Glu	Asp	Asn	Ile	Pro	Gln	Leu	Glu	Asp	Val	Ser	Asn	Phe	Leu			
	210				215						220							
Lys	Glu	Arg	Thr	Gly	Phe	Ser	Ile	Arg	Pro	Val	Ala	Gly	Tyr	Leu	Ser			
225				230					235				240					
Pro	Arg	Asp	Phe	Leu	Ser	Gly	Leu	Ala	Phe	Arg	Val	Phe	His	Cys	Thr			
			245					250					255					
Gln	Tyr	Val	Arg	His	Ser	Ser	Asp	Pro	Leu	Tyr	Thr	Pro	Glu	Pro	Asp			
		260					265						270					
Thr	Cys	His	Glu	Leu	Leu	Gly	His	Val	Pro	Leu	Leu	Ala	Glu	Pro	Ser			
	275					280						285						
Phe	Ala	Gln	Phe	Ser	Gln	Glu	Ile	Gly	Leu	Ala	Ser	Leu	Gly	Ala	Ser			
	290				295				300									
Glu	Glu	Thr	Val	Gln	Lys	Leu	Ala	Thr	Cys	Tyr	Phe	Phe	Thr	Val	Glu			
305				310					315				320					
Phe	Gly	Leu	Cys	Lys	Gln	Asp	Gly	Gln	Leu	Arg	Val	Phe	Gly	Ala	Gly			
			325				330					335						
Leu	Leu	Ser	Ser	Ile	Ser	Glu	Leu	Lys	His	Ala	Leu	Ser	Gly	His	Ala			
		340					345					350						
Lys	Val	Lys	Pro	Phe	Asp	Pro	Lys	Ile	Ala	Cys	Lys	Gln	Glu	Cys	Leu			
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Ile	Thr	Ser	Phe	Gln	Asp	Val	Tyr	Phe	Val	Ser	Glu	Ser	Phe	Glu	Asp			

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Ala Lys Glu Lys Met Arg Glu Phe Ala Lys Thr Val Lys Arg Pro Phe
385              390              395              400
Gly Leu Lys Tyr Asn Pro Tyr Thr Gln Ser Val Gln Val Leu Arg Asp
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Thr Lys Ser Ile Thr Ser Ala Met Asn Glu Leu Arg Tyr Asp Leu Asp
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Val Ile Ser Asp Ala Leu Ala Arg Val Thr Arg Trp Pro Ser Val
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<210> 2

<211> 488

<212> PRT

<213> Mus musculus

<400> 2

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Ser Leu Thr Gln Asn Lys Ala Ile Lys Ser Glu Asp Lys Lys Ser Gly
      35              40              45
Lys Glu Pro Gly Lys Gly Asp Thr Thr Glu Ser Ser Lys Thr Ala Val
      50              55              60
Val Phe Ser Leu Lys Asn Glu Val Gly Gly Leu Val Lys Ala Leu Arg
65              70              75              80
Leu Phe Gln Glu Lys His Val Asn Met Leu His Ile Glu Ser Arg Arg
      85              90              95
Ser Arg Arg Arg Ser Ser Glu Val Glu Ile Phe Val Asp Cys Glu Cys
      100             105             110
Gly Lys Thr Glu Phe Asn Glu Leu Ile Gln Leu Leu Lys Phe Gln Thr
      115             120             125
Thr Ile Val Thr Leu Asn Pro Pro Glu Ser Ile Trp Thr Glu Glu Glu
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Asp Leu Glu Asp Val Pro Trp Phe Pro Arg Lys Ile Ser Glu Leu Asp
145             150             155             160

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Arg Cys Ser His Arg Val Leu Met Tyr Gly Thr Glu Leu Asp Ala Asp
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His Pro Gly Phe Lys Asp Asn Val Tyr Arg Gln Arg Arg Lys Tyr Phe
      180                      185                      190
Val Asp Val Ala Met Gly Tyr Lys Tyr Gly Gln Pro Ile Pro Arg Val
      195                      200                      205
Glu Tyr Thr Glu Glu Glu Thr Lys Thr Trp Gly Val Val Phe Arg Glu
      210                      215                      220
Leu Ser Lys Leu Tyr Pro Thr His Ala Cys Arg Glu Tyr Leu Lys Asn
225                      230                      235                      240
Leu Pro Leu Leu Thr Lys Tyr Cys Gly Tyr Arg Glu Asp Asn Val Pro
      245                      250                      255
Gln Leu Glu Asp Val Ser Met Phe Leu Lys Glu Arg Ser Gly Phe Thr
      260                      265                      270
Val Arg Pro Val Ala Gly Tyr Leu Ser Pro Arg Asp Phe Leu Ala Gly
      275                      280                      285
Leu Ala Tyr Arg Val Phe His Cys Thr Gln Tyr Val Arg His Gly Ser
      290                      295                      300
Asp Pro Leu Tyr Thr Pro Glu Pro Asp Thr Cys His Glu Leu Leu Gly
305                      310                      315                      320
His Val Pro Leu Leu Ala Asp Pro Lys Phe Ala Gln Phe Ser Gln Glu
      325                      330                      335
Ile Gly Leu Ala Ser Leu Gly Ala Ser Asp Glu Asp Val Gln Lys Leu
      340                      345                      350
Ala Thr Cys Tyr Phe Phe Thr Ile Glu Phe Gly Leu Cys Lys Gln Glu
      355                      360                      365
Gly Gln Leu Arg Ala Tyr Gly Ala Gly Leu Leu Ser Ser Ile Gly Glu
      370                      375                      380
Leu Lys His Ala Leu Ser Asp Lys Ala Cys Val Lys Ser Phe Asp Pro
385                      390                      395                      400
Lys Thr Thr Cys Leu Gln Glu Cys Leu Ile Thr Thr Phe Gln Asp Ala
      405                      410                      415
Tyr Phe Val Ser Asp Ser Phe Glu Glu Ala Lys Glu Lys Met Arg Asp
      420                      425                      430
Phe Ala Lys Ser Ile Thr Arg Pro Phe Ser Val Tyr Phe Asn Arg Tyr
      435                      440                      445
Thr Gln Ser Ile Glu Ile Leu Lys Asp Thr Arg Ser Ile Glu Asn Val

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450 455 460
 Val Gln Asp Leu Arg Ser Asp Leu Asn Thr Val Cys Asp Ala Leu Asn
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 Lys Met Asn Gln Tyr Leu Gly Ile
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<210> 3

<211> 219

<212> RNA

<213> Artificial Sequence

<220>

<223> TPH2a riboprobe template

<400> 3

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 atcaaaagcg aggacaagaa aagcggcaaa gagcccggca aaggcgacac cacagagagc 180
 agcaagacag cagttgtgtt ctccttgaag aatgaagtt 219

<210> 4

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<223> TPH2b riboprobe

<400> 4

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 gaattcaatg agctcatcca gttgctgaaa tttcagacca ccattgtgac cctgaatccg 180
 cctgagagca tttggacgga ggaagaagat ctcgaggat 219

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<212> DNA

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<223> TPH2c riboprobe

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aaaagcgagg acaagaaaag cggcaaagag cccggcaaag gcgacaccac agagagcagc 180
aagacagcag ttgtgttctc cttgaagaat gaagttgggt ggctggtgaa agcacttaga 240
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agttctaagt cgaaatcttc gtggactgcg aatgtggcaa aacggaattc aatgagctca 360
tccagttgct gaaatttcag accaccattg tgaccctgaa tccgcctgag agcatttgga 420
cggaggaaga agatctcgag gatgtgccgt ggttcctcgc gaagatctct gagttagaca 480
gatgctctca ccgagtcctc atgtacggca ccgagcttga tgccgaccat ccaggattta 540
aggacaatgt ctatcgacag aggaggaagt attttgtgga tgtggccatg ggctataaat 600
atggtcagcc cattcccagg gtcgagtaca cagaagaaga gactaaaact tgggggtgtg 660
tgttccggga gctctccaaa ctctaccoga ctcatgcttg ccgggagtac ctgaaaaacc 720
tccccctgct gaccaagtac tgtggctaca gggaagacaa cgtgccgcaa ctggaagacg 780
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<210> 6

<211> 842

<212> DNA

<213> Artificial Sequence

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<223> TPH2-892 riboprobe

<400> 6

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tacccgaccc acgcctgcag ggagtaacct agaaacctcc ctttgctctc aaaatactgt 120
ggctatcggg aagacaacat cccgcaactg gaggatgtct ccaacttttt aaaagaacgc 180
actgggtttt ccatccgtcc tgtggctggt tacctctcac cgagagattt tctgtcgggg 240
ttagcctttc gagtctttca ctgcactcag tatgtgagac acagttcaga tcccctctac 300
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agttttgctc aattctccca agaaattggc ctggcttccc ttggagcttc agaggagaca 420
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ggacagctga gagtcctttg ggccggcttg ctttcttcca tcagtgaact caaacatgca 540
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ctcatcacga gcttccagga tgtctacttt gtatctgaga gctttgaaga tgcaaaggag 660
aagatgagag aatttgccaa gaccgtgaag cgcccgtttg gactgaagta caaccctac 720
acacagagtg ttcaggttct cagagacacc aagagcataa ctagtgccat gaatgagttg 780
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<210> 7

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<211> 21

<212> DNA

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<210> 9

<211> 22

<212> DNA

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<223> Murine TPH2 reverse primer mTPH2-585R

<400> 9

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<211> 21

<212> DNA

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<210> 11

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Murine TPH2 probe mTPH2-565T

<400> 11

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<210> 12

<211> 26

<212> DNA

<213> Artificial Sequence

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<223> Murine TPH2 probe mTPH2-1292T

<400> 12

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26